LETTERS TO THE EDITOR

doi:10.1093/occmed/kqv082

Noise-induced hearing loss and combined noise and vibration exposure

Dear Sir,

In their interesting paper on this subject, Turcot et al. [1] mention as a limitation of their study the ‘lack of detail with respect to different characteristics of the noise exposure experienced in the mining and forestry industries “versus” other industries’. It struck me that they considered the subjects of their study who were exposed to excessive noise and vibration as one homogeneous group, even though the spectrum of frequencies of the exposure pattern of the two groups must have been very different. It is not mentioned whether their mining worker subjects worked in open cast mines or underground, which would have implied an even more markedly different exposure pattern. It would be of great interest and also of value with regard to prevention, if the authors would pursue the aims of their study by investigating the effect on hearing loss of the different exposure patterns of the two groups ‘versus’ each other. The fact that they found significant differences in hearing loss also at lower frequencies such as 500 and 100 Hz would seem to point to a strong correlation with vibration energy exposure effects, such as hand-arm vibration. Taking the differences of exposure pattern resulting from the different tools used by the two groups in consideration, such a study would be likely to throw some more light on its hypothesized additional effect on hearing loss.

Johann Teunis Mets
Retired Specialist, Occupational Health
e-mail: jttmets@telkomsa.net

Reference


doi:10.1093/occmed/kqv096

Reply

Thank you, Dr Mets, for your interesting comments. We are aware that it would be interesting to pursue the analyses by comparing the mine worker group to the forestry worker group. Our database does not contain detailed information on noise exposure as well as information on spectrum of frequencies of the exposure pattern of the two groups. However, since we were interested in workers with white fingers with respect to noise-induced hearing loss, we had to group these two categories as one homogeneous group for statistical purposes. This study revealed the possibility of adding minimal questions on vibration exposure to the current audiometric screening questionnaire. However, this proposal was rejected since financial constraints are involved in the modification of the computer-based data collection and analytical systems. Nevertheless, we consider that the follow-up of a positive audiometric screening test should in the future include specific investigation of the types of vibrating tools and equipment used.

Alice Turcot
Serge Girard
Marilene Courteau
Julie Baril
Richard Larocque
e-mail: alice_turcot@ssss.gouv.qc.ca

Serial peak flow measurements in allergic alveolitis

Dear Sir,

We read with interest the recent article by Burge et al. comparing serial peak flow [peak expiratory flow (PEF)] changes in occupational asthma (OA) and extrinsic allergic alveolitis (EAA) in workers exposed to metalworking fluids (MWFs) [1]. The exact cause of the allergic lung disease seen during MWF outbreaks remains to be determined despite several decades of workplace investigations [2]. It is clear, however, that re-circulated water-soluble MWFs contain chemical asthmagens and are prone to microbial contamination with bacteria, fungi and opportunistic mycobacteria linked to the development of EAA.

Burge et al. found that work-related changes in PEF were demonstrated in workers with EAA and hypothesized that this might reflect falls in PEF that occurred in parallel with falls in FEV1 (forced expiratory volume in 1 s) and FVC (forced vital capacity) due to the